



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0648; Product Identifier 2017-SW-087-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Leonardo S.p.A. Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for Leonardo S.p.A. (Leonardo) Model AB139 and AW139 helicopters. This proposed AD would require replacing screws installed on the left and right main landing gear (MLG) shock absorber assembly. This proposed AD is prompted by a report that some screws may have been manufactured without meeting specifications. The actions of this proposed AD are intended to correct an unsafe condition on these helicopters.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0648; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the European Aviation Safety Agency (EASA) AD, the economic evaluation, any comments received, and other information. The street address for Docket Operations (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed rule, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at <http://www.leonardocompany.com/-/bulletins>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**FOR FURTHER INFORMATION CONTACT:** David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101

Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email david.hatfield@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2016-077, dated April 19, 2016, to correct an unsafe condition for Finmeccanica S.p.A. (previously Agusta) Model AB139 and AW139 helicopters if equipped with kit “Increased Gross Weight 6800 kg” part number (P/N)

4G0000F00111 (kit). EASA advises of a manufacturing issue with the standard screws (P/N NAS1351-5H12P) installed on MLG shock absorber assembly P/N 1652B0000-01. According to EASA, a material analysis shows that the MLG shock absorber screws may have a lower fatigue life than the screws used during the certification fatigue tests. EASA states the affected MLG units have been identified by serial number. EASA also advises that this unsafe condition, if not detected and corrected, could result in failure of the MLG shock absorber, collapse or retraction of the MLG, and subsequent damage to the helicopter and injury to occupants.

To correct this condition, the EASA AD requires replacing each standard screw with a new screw P/N 1652A0001-01 and re-identifying the serial number of each MLG shock absorber assembly that has the new screw installed, and prohibits installing any affected MLG shock absorber assembly unless the screw has been replaced.

### **FAA's Determination**

These helicopters have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with Italy, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

### **Related Service Information**

We reviewed Finmeccanica Bollettino Tecnico No. 139-397, dated April 7, 2016, which contains procedures for replacing the standard screws installed on the left and right

MLG assembly and for re-identifying the MLG shock absorber assembly P/N and the MLG assembly S/N.

### **Proposed AD Requirements**

This proposed AD would require replacing each standard screw P/N NAS1351-5H12P with a screw P/N 1652A0001-01 and re-identifying the serial number of the MLG assembly within the following compliance times:

- For MLG assemblies with 26,800 or more landings, within 100 hours time-in-service (TIS).
- For MLG assemblies with between 22,000 and 26,799 landings, within 300 hours TIS or before the MLG assembly accumulates 27,200 landings, whichever occurs first.
- For MLG assemblies with less than 22,000 landings, within 1,200 hours TIS or before the MLG assembly accumulates 23,200 landings, whichever occurs first.

This proposed AD would also prohibit installing an MLG assembly on any helicopter unless the screw has been replaced.

### **Costs of Compliance**

We estimate that this proposed AD would affect 111 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this proposed AD, based on an average labor rate of \$85 per work-hour. Replacing the screws on the left and right MLG assemblies would require about 16 work-hours and \$200 for parts, for a total cost of \$1,560 per helicopter and \$173,160 for the U.S. fleet.

According to Finmeccanica's service information, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on

affected individuals. We do not control warranty coverage by Finmeccanica.

Accordingly, we have included all costs in our cost estimate.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Leonardo S.p.A.:** Docket No. FAA-2018-0648; Product Identifier 2017-SW-087-AD.

**(a) Applicability**

This AD applies to Leonardo S.p.A. Model AB139 and AW139 helicopters, certificated in any category, with an Increased Gross Weight 6,800 Kg kit part number (P/N) 4G0000F00111, and with a main landing gear (MLG) assembly with a P/N and serial number (S/N) listed in Table 1 to paragraph (a) of this AD installed.

P/N	S/N
3G3210V00137 or 1650B1000-01 (left hand)	00100 through 01003
	02000 through 02014
3G3210V00237 or 1650B2000-01 (right hand)	00100 through 01016
	02000 through 02017

Table 1 to Paragraph (a)

**(b) Unsafe Condition**

This AD defines the unsafe condition as an MLG shock absorber screw that does not meet specifications. This condition could result in failure of the MLG shock absorber, collapse or retraction of the MLG, and subsequent damage to the helicopter.

**(c) Comments Due Date**

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.



**(e) Required Actions**

(1) Within the following compliance times, replace each screw P/N NAS1351-5H12P installed on an MLG shock absorber with a screw P/N 1652A0001-01. Re-identify the MLG assembly using black permanent ink by marking an “R” at the end of the S/N of the MLG assembly and cover with a transparent coating. For purposes of this AD, a “landing” is counted any time the helicopter lifts off into the air and then lands again regardless of the duration of the landing and regardless of whether the engine is shut down:

(i) For MLG assemblies with 26,800 or more landings, within 100 hours time-in-service (TIS).

(ii) For MLG assemblies with between 22,000 and 26,799 landings, within 300 hours TIS or before the MLG assembly accumulates 27,200 landings, whichever occurs first.

(iii) For MLG assemblies with less than 22,000 landings, within 1,200 hours TIS or before the MLG assembly accumulates 23,200 landings, whichever occurs first.

(2) After the effective date of this AD, do not install an MLG assembly with a P/N and S/N listed in Table 1 to paragraph (a) of this AD on any helicopter unless the screw has been replaced and the MLG assembly re-identified as described in paragraph (e)(1) of this AD.

**(f) Special Flight Permits**

Special flight permits are prohibited.

**(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(h) Additional Information**

(1) Finmeccanica Bollettino Tecnico No. 139-397, dated April 7, 2016, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at <http://www.leonardocompany.com/-/bulletins>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2016-0077, dated April 19, 2016. You may view the EASA AD on the Internet at <http://www.regulations.gov> in the AD Docket.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 3200 Landing Gear System.

Issued in Fort Worth, Texas, on July 9, 2018.

Scott A. Horn,

Deputy Director for Regulatory Operations,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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